selectively routing video data from the common video scaler to one of the plurality of video overlay generators to facilitate selective display of overlay data on a display device wherein each of the video overlay generators outputs overlay information.

REMARKS

Applicants respectfully traverse and request reconsideration of the rejected claims. Claims 1-22 stand rejected under 35 U.S.C. §102(b) as being anticipated by Blahut, et al. (U.S. Patent No. 5,570,126). Claims 1, 9, and 15 have been amended. Claims 1-22 remain in the application.

Claims 1, 9, and 15 have been amended by adding "wherein each of the video overlay generators outputs overlay information". This change is supported in the specification on page 5 lines 14-15. The amendment adds information to claims 1, 9, and 15 that was already inherent in the original claims 1, 9, and 15. As such the amendment does not change the scope of the claim so as to fall within the limitations of the *Festo* case. Applicant respectfully request that the examiner inform the applicant if he is not in agreement with this statement.

Rejections under 35 U.S.C. §102(b)

Blahut is directed to a system for composing multimedia signals that are then transmitted to users over a packet network (abstract). The system contains a composing unit that combines signals received from video scalers, audio scalers, a cursor generator, and a text generator (FIG. 4). The signals are combined in a video combiner that combines the signals into a single video frame (col. 8, lines 19-22, FIG. 4). Hence the system of Blahut allows a video signal to be generated that contains multiple scaled full motion video images and text that can be displayed on a television monitor (FIG. 5, col. 9 lines 20-23).

Claim 1 is directed to a video overlay apparatus comprising a video scaler operatively responsive to input video data; and a programmable switching mechanism, operatively coupled to the video scaler, to selectively route video data from the video scaler to one of a plurality of video overlay generators to facilitate selective display of overlay data on a display device wherein each of the video overlay generators outputs overlay information. Claim 1 is distinguishable from Blahut at least because Blahut does not teach of a programmable switching mechanism operatively coupled to the video scaler, to selectively route video data from the video

scaler to one of a plurality of video overlay generators to facilitate selective display of overlay data on a display device wherein each of the video overlay generators outputs overlay information. Blahut does contain a video scaler that receives a video signal and outputs the scaled video signal to a video combiner (FIG. 4). However, Blahut does not teach of a programmable switching mechanism, operatively coupled to the video scaler, to selectively route video data *from* the video scaler *to* one of a plurality of video overlay generators to facilitate selective display of overlay data on a display device wherein each of the video overlay generators outputs overlay information.

The Examiner asserts in the "Response to Arguments" section of the Office Action that the video combiner of Blahut provides the functionality of the programmable switching mechanism by selectively routing video data and facilitating selective display of data. However, Applicants respectfully submit that this assertion is incorrect. The video combiner of Blahut appears to combine signals from one or more video scalers which are not video overlay signals (FIG. 4). However, the video combiner of Blahut creates one composite signal that is sent to a video compressor and does not selectively route the composite signal among a plurality of possible outputs (FIG. 4). Hence the video combiner can not be a programmable switching mechanism that selectively routes video data *from* the video scalar to one of a *plurality* of video overlay generators to facilitate selective display of overlay data on a display device wherein each of the video overlay generators outputs overlay information. The Examiner further notes that the programmable switching mechanism as claimed does not perform any switching since it merely "routes" data. However, this assertion is also mistaken since taking an input signal and selectively routing it among possible output paths is the operation of a switch.

The Examiner further contends that the combination of text generator, cursor generator, and video scalers with the video combiner constitute plural video overlay generators. Applicants respectfully submit that this contention is mistaken. The video combiner of Blahut outputs a single video overlay. Hence the video combiner of Blahut is a single video overlay generator that cannot provide first and second video overlays. Blahut therefore does not teach of the output of a video scalar being selectively routed to one of a plurality of video overlay generators. Instead, Blahut appears to teach of one or more video scaler outputs being inputted to a single video overlay generator. Blahut therefore does not teach of a programmable switching mechanism, operatively coupled to the video scaler, to selectively route video data *from* the

video scaler *to* one of a *plurality* of video overlay generators to facilitate selective display of overlay data on a display device wherein each of the video overlay generators outputs overlay information.

For at least the reasons stated above, claim 1 is allowable.

Claim 2 adds to the video overlay device of claim 1 that the programmable switching mechanism includes a programmable register. The Examiner asserts that since the video combiner of Blahut creates a video frame, a memory register is inherently necessitated. As discussed with regard to claim 1, the video combiner of Blahut is not a programmable switching mechanism. Whether or not a memory register is inherent in the creation of a frame by a video combiner is not relevant to the claimed programmable switching mechanism since the programmable switching mechanism selectively routes video data from the video scaler to one of a plurality of video overlay generators to facilitate selective display of overlay data on a display device wherein each of the video overlay generators outputs overlay information instead of creating a video frame. For at least these reasons, claim 2 is allowable.

Claim 3 adds to claim 1 a first display engine responsive to first graphics data for generating first video window timing data, a second display engine responsive to second graphics data for generating second video window timing data, a first video overlay generator operatively responsive to first graphics data; and a second video overlay generator operatively responsive to the second graphics data. With regard to claim 3, applicants reassert their remarks from the previous responses. Furthermore, Applicants note that the video combiner of Blahut working in conjunction with the text generator, curser generator, and video scaler and positioners do not form plural video overlay generators as claimed by the Examiner because the video combiner generates a single video overlay.

As to claims 4, Applicant respectfully reasserts the relevant remarks of the previous response and those remarks made with respect to claim 3. Accordingly, claim 4 is believed to be allowable.

Claim 5 introduces additional novel subject matter that constitutes patentable subject matter. For example, claims 5 requires, *inter alia*, a programmable switching mechanism that includes a selectable video clock source operatively coupled to the video scaler wherein the video scaler scales input video corresponding to a display engine for at least one of the plurality of video overlay generators in response to a video clock signal output from the selectable video

clock source. As discussed above, Blahut does not teach of such a programmable switch coupled to a plurality of video overlay generators. Furthermore, Blahut does not teach of a video clock source so Blahut can not teach of a video clock source operatively coupled to the video scalar. Applicants respectfully request a showing by line and column number of where Blahut teaches of a selectable video clock source operatively coupled to the video scaler wherein the video scaler scales input video corresponding to a display engine for at least one of the plurality of video overlay generators in response to a video clock signal output from the selectable video clock source. Applicants respectfully submit that claim 5 is allowable.

Claim 6 introduces additional novel subject matter that constitutes patentable subject matter. For example, claim 6 requires, *inter alia*, a programmable switching mechanism that facilitates programming of frame buffer space for each display engine based on which video overlay generator has been selected to receive input video. Blahut does not teach or suggest programming frame buffer space for each display engine based on which video overlay generator has been selected to receive input video, in part because Blahut does not teach of plural video overlay generators that selectively receive a video signal. Accordingly, Applicants respectfully submit that claim 6 is allowable.

Claim 7 adds to the video overlay device of claim 5 that the selectable video clock source includes a programmable switch to facilitate switching between a plurality of display dependent clock signals that are selectively coupled to a common video scaler line buffer. Blahut does not teach of a video clock source. Hence Blahut does not teach or suggest of a selectable video clock source included within a programmable switching mechanism that facilitates switching between a plurality of display dependent clock signals. For at least this reason claim 7 is allowable.

Claim 8 adds to the video overlay device of claim 1 a user interface operable to control the programmable switching mechanism to facilitate selective overlay display on a per application basis. Blahut does not teach or suggest such a user interface for at least the reason that Blahut does not teach such a programmable switching mechanism. Claim 8 is therefore allowable.

Regarding claim 9, the Examiner rejected claim 9 for reasons similar to those discussed with respect to claims 1, 3, and 5. Applicant respectfully reasserts the relevant remarks with respect to claims 1, 3, and 5 above. Accordingly, Applicants believe claim 9 to be allowable.

Regarding claim 10, the Examiner rejected claim 10 for reasons similar to those discussed with respect to claim 2. Applicant respectfully reasserts the relevant remarks with respect to claims 2 above. Accordingly, Applicants believe claim 10 to be allowable.

Regarding claim 11, the Examiner rejected claim 11 for reasons similar to those discussed with respect to claim 4. Applicant respectfully reasserts the relevant remarks with respect to claims 4 above. Accordingly, Applicant believes claim 11 to be allowable.

The Examiner rejected claim 12 for reasons similar to those discussed with respect to claim 6. Applicant respectfully reasserts the relevant remarks with respect to claims 6 above. Accordingly, Applicants believe claim 12 to be allowable.

Claim 13 adds to the video overlay apparatus of claim 9 that the selectable video clock source includes a programmable switch to facilitate switching between a plurality of display dependent clock signals. Blahut does not teach of a video clock source. Hence Blahut does not teach or suggest of a selectable video clock source included within a programmable switching mechanism that facilitates switching between a plurality of display dependent clock signals. For at least this reason claim 13 is allowable.

Claim 14 adds to the video overlay device of claim 9 a user interface operable to control the programmable switching mechanism to facilitate selective overlay display on a per application basis. Blahut does not teach or suggest such a user interface since, as discussed above with regard to claim 1, Blahut does not teach such a programmable switching mechanism. Therefore claim 14 is allowable.

Claim 15 is directed to a video overlay method comprising the steps of scaling input video through a common video scaler for a plurality of video overlay generators; and selectively routing video data from the common video scaler to one of the plurality of video overlay generators to facilitate selective display of overlay data on a display device wherein each of the video overlay generators outputs overlay information. As discussed above with regard to claim 1, Blahut does not teach or suggest selectively routing video data from a common video scaler to one of a plurality of video overlay generators to facilitate selective display of overlay data on a display device wherein each of the video overlay generators outputs overlay information. Instead, Blahut teaches, inter alia, of a video combiner receiving inputs from multiple video scalers that are combined to form a composite video signal. For at least this reason claim 15 is allowable.

Regarding claim 16, the Examiner rejected claim 16 for reasons similar to those discussed with respect to claim 2. Applicant respectfully reasserts the relevant remarks with respect to claims 2 above. Accordingly, Applicant believes claim 16 to be allowable.

Claim 17 adds to the video overlay method of claim 15 the steps of providing first video window timing data from a first display engine responsive to first graphics data, providing second video window timing data from a second display engine responsive to second graphics data, generating a first video overlay based on first graphics data and at least a portion of selectively routed input video data; and generating a second video overlay based on second graphics data and at least a portion of selectively routed input video data. Applicants respectively reassert the relevant remarks of the previous response made with respect to claim 17. Furthermore, since Blahut does not teach of window timing data, Blahut cannot teach of providing first and second window timing data from first and second display engines. For at least this reason, claim 17 is allowable.

Regarding claim 18, the Examiner rejected claim 18 for reasons similar to those discussed with respect to claim 4. Applicant respectfully reasserts the relevant remarks with respect to claims 4 above. Accordingly, Applicant believes claim 18 to be allowable.

Claims 19-22 are method claims that perform steps that are similar in scope to apparatus claims 4-8. Hence claims 19-22 are allowable for at least the same reasons as claims 4-8.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with markings to show changes made".

The Applicant respectfully requests that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below-listed agent if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

By: _Nicholas Oros_

Nick Oros
Registration No. 48,413

Date: June 13, 2002
VEDDER, PRICE, KAUFMAN &
KAMMHOLZ
222 N. LaSalle Street
Chicago, IL 60601
(312) 609-7500
FAX: (312) 609-5005

<u>Version with Markings to Show Changes</u>

<u>In the Specification</u>

Please replace the paragraph beginning on line 15 of page 7 with the following paragraph.

The selectable video clock source 202 includes a multiplexer which serves as a programmable switch to provide switching between a plurality of display-dependent clock signals 204a and 208b. These signals are display-dependent since they may vary depending upon which display is selected to display the overlaid video. For example, if a selected display has a higher refresh rate than another display, the clock signals 204a and 208b may be different, and as such the single video clock signal is switched to be equal to one of the differing clocks 204a and 208b.

In the Claims

Please replace claims 1, 9, and 15 with the following claims:

1. (Amended) A video overlay apparatus comprising:

a video scaler operatively responsive to input video data; and

a programmable switching mechanism, operatively coupled to the video scaler, to selectively route video data from the video scaler to one of a plurality of video overlay generators to facilitate selective display of overlay data on a display device <u>wherein each of the video overlay generators outputs overlay information</u>.

9. (Amended) A video overlay apparatus comprising:

a video scaler operatively responsive to input video data;

a first display engine responsive to first graphics data for generating first video window timing data,

a second display engine responsive to second graphics data for generating second video window timing data,

a first video overlay generator operatively responsive to first graphics data;

a second video overlay generator operatively responsive to the second graphics data; and

a programmable switching mechanism, operatively coupled to the video scaler, to selectively route video data from the video scaler to one of a plurality of video overlay generators to facilitate selective display of overlay data on a display device<u>, wherein each of the video overlay generators outputs overlay information and</u> wherein the programmable switching mechanism includes a selectable video clock source operatively coupled to the video scaler wherein the video scaler scales input video corresponding to a display engine for at least one of the plurality of video overlay generators in response to a video clock signal output from the selectable video clock source.

15. (Amended) A video overlay method comprising the steps of:

scaling input video through a common video scaler for a plurality of video overlay generators; and

selectively routing video data from the common video scaler to one of the plurality of video overlay generators to facilitate selective display of overlay data on a display device wherein each of the video overlay generators outputs overlay information..